

Notice of Allowability**Application No.**

10/644,051

Applicant(s)

WANG ET AL.

Examiner

SUDHANSHU C. PATHAK

Art Unit

2611

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/11/2008.
2. ☒ The allowed claim(s) is/are 1-2, 5-6, 8, 10-11, 14 & 18-20 and re-numbered as claims 1-2, 6, 5, 3-4, 7, 8, 10-11 & 9 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 08/04/2008.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. Claims 1-2, 5-6, 8, 10-11, 14 & 18-20 are pending in the application.
2. Claims 3-4, 7, 9, 12-13 & 15-17 have been canceled.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Anatoly Frenkel on August 4th, 2008.

The claims have been amended as follows:

- In Claim 1, line 26-27 **replace** "...and providing the adjusted signal to the Walsh correlator..." **with**
"...providing the adjusted signal to the Walsh correlator; and separating the adjusted signal to a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using the Walsh correlator..."
- In Claim 1, line 15 **replace** "...the hard-decision..." **with**
"...a hard-decision..."
- In Claim 6, line 12 **replace** "...interference signal)..." **with**
"...interference signal..."
- In Claim 10 **delete** lines 3-7

- In Claim 11, line 14 **replace** "...the SUI speech user..." **with**
"...the speech user..."
- In Claim 18, lines 27 **replace** "...provide a further adjusted signal..." **with**
"...provide an adjusted signal..."
- In Claim 18, lines 29-30 **replace** "...wherein the Walsh correlator is
configured to provide..." **with**
"...wherein the Walsh correlator is configured to separate the adjusted
signal to provide..."

Allowable Subject Matter

4. Claims 1-2, 5-6, 8, 10-11, 14 & 18-20 are allowed.
5. Claims 1-2, 5-6, 8, 10-11, 14 & 18-20 and re-numbered as claims 1-2, 6, 5, 3-4, 7, 8, 10-11 & 9 respectively are allowable over the prior art of record because the cited reference do not contain the specified limitation of a method comprising: receiving an input signal in a discrete-time domain by a blind speech user interference cancellation receiver for a high speed downlink packet access; separating the input signal to a desired high speed downlink packet access signal with known spreading codes and to an interfering speech user signal with unknown spreading codes using a Walsh correlator of the blind speech user interference cancellation receiver for further processing; generating a soft-decision high speed downlink packet access signal from the desired high speed downlink packet access signal using a one-stage soft-decision parallel interference cancellation receiver; generating a hard-decision high speed

downlink packet access signal based on the soft-decision high speed downlink packet access signal using a hard-decision means; generating a multiple access interference signal based on the hard-decision high speed downlink packet access signal using multiple access interference estimation means of the blind speech user interference cancellation receiver; generating an adjusted signal by subtracting the multiple access interference signal from the input signal using a first adder; providing the adjusted signal to the Walsh correlator; and separating the adjusted signal to a further desired high speed downlink packet access signal with the known spreading codes and a further interfering speech user signal with the unknown spreading codes using the Walsh correlator.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUDHANSHU C. PATHAK whose telephone number is (571)272-5509. The examiner can normally be reached on 9am-5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on 571-272-3042.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sudhanshu C Pathak/
Primary Examiner, Art Unit 2611